Exhibit 8

Exhibit 8
U.S. Patent No. 10,045,383
v.
AT&T's 5G Cellular Services ("Exemplary Product")

Claim Language	Selected Analysis and Evidence Regarding Exemplary Product
Claim 1	
[pre] An operating method of a network comprising at least a base station, the method comprising:	The Exemplary Product is an operating method of a networking comprising at least a base station. For example, Defendant markets and sells 5G cellular services to customers. *E.g.*, https://www.att.com/5g/consumer/ (). The 5G technology used by Defendant is defined by a wireless standards body in which Defendant is a member, the 3rd Generation Partnership Project ("3GPP"). 3GPP promulgates a number of standards including the 38.xxx series that defines the standards for 5G. These standards, including the specific aspects of the standards discussed below, define a method for managing base stations such as those utilized by Defendant in offering its 5G cellular services. Defendant also markets and sells 4G cellular services to customers. *E.g.*, https://www.att.com/support/article/wireless/KM1008740. The 4G technology used by Defendant is also defined by the 3rd Generation Partnership Project ("3GPP"). 3GPP promulgates a number of standards including the 36.xxx series that defines the standards for 4G. These standards, including

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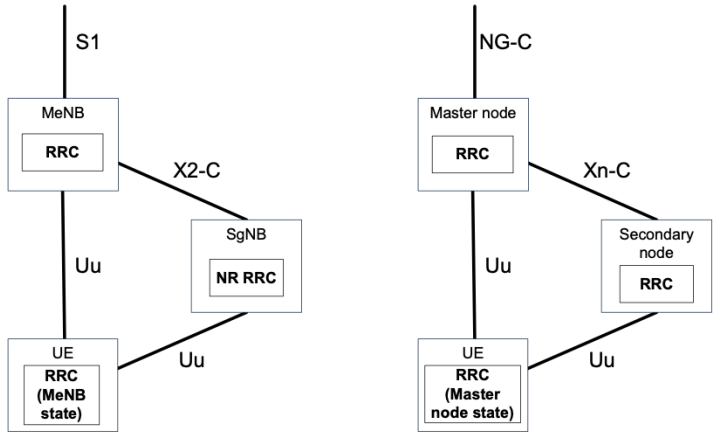
	the specific aspects of the standards discussed below, define a method for managing base stations such as those utilized by Defendant in offering its 4G cellular services. On information and belief, Defendant also uses base stations that offer 4G and 5G multi-connectivity, offering the ability for a single physical structure to operate as multiple base stations (e.g., a 4G base station and a 5G base station). 3GPP promulgates a number of standards including the 37.xxx series that defines the standards for 4G and 5G multi-connectivity. The Exemplary Product has been infringing since at least its implementation of the standards set forth in versions of the 36.xxx, 37.xxx, and 38.xxx series referenced in this chart. On information and belief, the functionality described in this chart has been implemented in all versions of the series published after the cited versions. The Exemplary Product may also have practiced the disclosed functionality prior to the publication of the cited versions. 3GPP TS 37.340 V15.5.0 ("TS 37.340") demonstrates an example of the control plane architecture used in the Exemplary Product.  **Figure 4.2.1-1: Control plane architecture for EN-DC (left) and MR-DC with 5GC (right).** TS 3.340 (available to download at https://www.3gpp.org/ftp//Specs/archive/37_series/37.340/37340-f50.zip) at 10. *See also id*. at 8 (

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	3.2 Abbreviations For the purposes of the present document, the abbreviations given in 3GPP TR 21.905 [1] and the following apply. An abbreviation defined in the present document takes precedence over the definition of the same abbreviation, if any, in 3GPP TR 21.905 [1] and 3GPP TS 36.300 [2]. DC Intra-E-UTRA Dual Connectivity EN-DC E-UTRA-NR Dual Connectivity MCG Master Cell Group MN Master Node MR-DC Multi-Radio Dual Connectivity NE-DC NR-E-UTRA Dual Connectivity NGEN-DC NG-RAN E-UTRA-NR Dual Connectivity NR-DC NR-NR Dual Connectivity SCG Secondary Cell Group SN Secondary Node). Investigation of both the patent and the Exemplary Product (and other potentially infringing products) is ongoing. This chart is based on evidence and analysis reasonably accessible at this time. Wireless Alliance reserves the right to update and amend its contentions, including adding additional claims and evidence, as the litigation progresses and discovery is provided by the defendant.
[a] transmitting, performed by each of base stations, a downlink reference signal to a terminal;	Each of the base stations in the Exemplary Product transmits a downlink reference signal to a terminal. For example, 3GPP TS 36.214 V15.3.0 ("TS 36.214") describes the 4G aspects of the multi-connectivity base stations transmitting reference signals. TS 36.214 (can be downloaded at https://www.etsi.org/deliver/etsi_TS/136200_136299/136214/15.03.00_60/ts_136214v150300p.pdf) at 8 (

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	5.1.1 Reference Signal Received Power (RSRP) **Definition**: Reference signal received power (RSRP), is defined as the linear average over the power contributions (in [W]) of the resource elements that carry cell-specific reference signals within the considered measurement frequency bandwidth. For RSRP determination the cell-specific reference signals R_0 according to TS 36.211 [3] shall be used. If the UE can reliably detect that R_1 is available, it may use R_1 in addition to R_0 to determine RSRP. If higher layers indicate measurements based on discovery signals, the UE shall measure RSRP in the subframes in the configured discovery signal occasions. For frame structure 1 and 2, if the UE can reliably detect that cell-specific reference signals are present in other subframes, the UE may use those subframes in addition to determine RSRP. The reference point for the RSRP shall be the antenna connector of the UE. If receiver diversity is in use by the UE, the reported value shall not be lower than the corresponding RSRP of any of the individual diversity branches.). Similarly, 3GPP TS 38.215 V15.4.0 ("TS 38.215") describes the 5G aspects of the multi-connectivity base stations transmitting reference signals. TS 38.215 (which can be downloaded at https://www.3gpp.org/ftp//Specs/archive/38_series/38.215/38215-f40.zip) at 7 (

<table>
<tr><th>Claim Language</th><th>Selected Analysis and Evidence Regarding Exemplary Product</th></tr>
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<h3>5.1.1 SS reference signal received power (SS-RSRP)</h3>
<table>
<tr><td>Definition</td><td>SS reference signal received power (SS-RSRP) is defined as the linear average over the power contributions (in [W]) of the resource elements that carry secondary synchronization signals. The measurement time resource(s) for SS-RSRP are confined within SS/PBCH Block Measurement Time Configuration (SMTC) window duration. If SS-RSRP is used for L1-RSRP as configured by reporting configurations as defined in 3GPP TS 38.214 [6], the measurement time resources(s) restriction by SMTC window duration is not applicable.

For SS-RSRP determination demodulation reference signals for physical broadcast channel (PBCH) and, if indicated by higher layers, CSI reference signals in addition to secondary synchronization signals may be used. SS-RSRP using demodulation reference signal for PBCH or CSI reference signal shall be measured by linear averaging over the power contributions of the resource elements that carry corresponding reference signals taking into account power scaling for the reference signals as defined in 3GPP TS 38.213 [5]. If SS-RSRP is not used for L1-RSRP, the additional use of CSI reference signals for SS-RSRP determination is not applicable.

SS-RSRP shall be measured only among the reference signals corresponding to SS/PBCH blocks with the same SS/PBCH block index and the same physical-layer cell identity.

If SS-RSRP is not used for L1-RSRP and higher-layers indicate certain SS/PBCH blocks for performing SS-RSRP measurements, then SS-RSRP is measured only from the indicated set of SS/PBCH block(s).

For frequency range 1, the reference point for the SS-RSRP shall be the antenna connector of the UE. For frequency range 2, SS-RSRP shall be measured based on the combined signal from antenna elements corresponding to a given receiver branch. For frequency range 1 and 2, if receiver diversity is in use by the UE, the reported SS-RSRP value shall not be lower than the corresponding SS-RSRP of any of the individual receiver branches.</td></tr>
</table>
).

Investigation of both the patent and the Exemplary Product (and other potentially infringing products) is ongoing. This chart is based on evidence and analysis reasonably accessible at this time. Wireless Alliance reserves the right to update and amend its contentions, including adding additional claims and evidence, as the litigation progresses and discovery is provided by the defendant.
</td></tr>
<tr><td>[b] receiving, performed by a first base station, a strength of the</td><td>A first base station in the Exemplary Product receives a strength of the downlink reference signal from the terminal.</td></tr>
</table>

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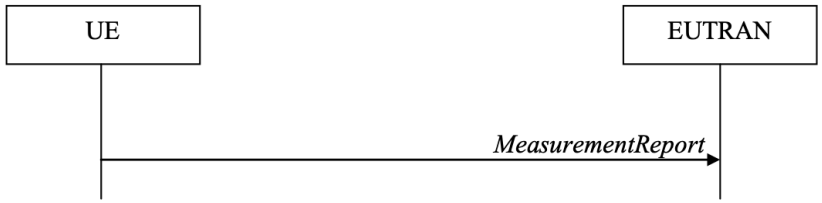
downlink reference signal from the terminal;	For example, 3GPP TS 36.331 V15.5.1 ("TS 36.331") describes the 4G base station receiving a MeasurementReport with a strength of the downlink reference signal. TS 36.331 (which can be downloaded at https://www.3gpp.org/ftp//Specs/archive/36_series/36.331/36331-f51.zip) at 209-210 (5.5.5 Measurement reporting 5.5.5.1 General  **Figure 5.5.5.1-1: Measurement reporting** The purpose of this procedure is to transfer measurement results from the UE to E-UTRAN. The UE shall initiate this procedure only after successful security activation. For the *measId* for which the measurement reporting procedure was triggered, the UE shall set the *measResults* within the *MeasurementReport* message as follows: 1> set the *measId* to the measurement identity that triggered the measurement reporting; 1> set the *measResultPCell* to include the quantities of the PCell;). *See also id*. at 609-616 (describing and providing an example of MeasResults, including fields such as rsrpResult and RSRP-Range). Investigation of both the patent and the Exemplary Product (and other potentially infringing products) is ongoing. This chart is based on evidence and analysis reasonably accessible at this time. Wireless Alliance reserves the right to update and amend its contentions, including adding additional claims and evidence, as the litigation progresses and discovery is provided by the defendant.

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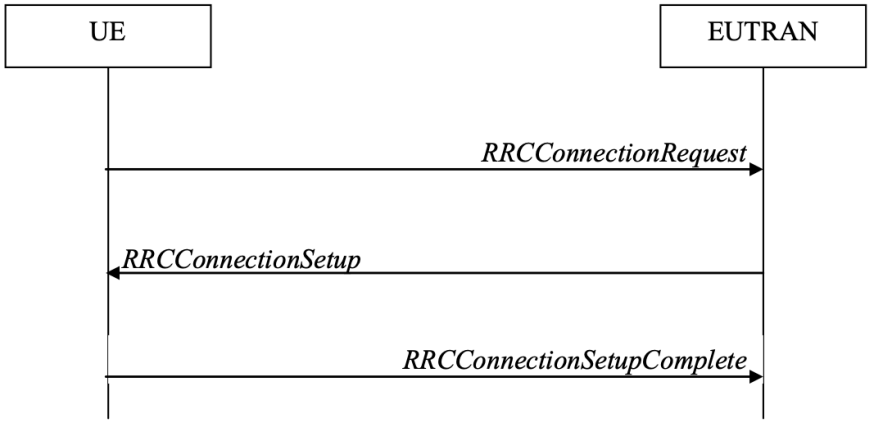
[c] establishing, performed by the first base station, a downlink cell association with the terminal;	A first base station in the Exemplary Product establishes a downlink cell association with the terminal. For example, TS 36.331 describes forming a downlink cell association with a UE. *E.g.*, TS 36.331 at 73 (5.3.3 RRC connection establishment 5.3.3.1 General  **Figure 5.3.3.1-1: RRC connection establishment, successful**). Investigation of both the patent and the Exemplary Product (and other potentially infringing products) is ongoing. This chart is based on evidence and analysis reasonably accessible at this time. Wireless Alliance reserves the right to update and amend its contentions, including adding additional claims and evidence, as the litigation progresses and discovery is provided by the defendant.

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[d] determining, performed by the first base station, an identifier of a second base station providing an uplink control channel;	The first base station in the Exemplary Product determines an identifier of a second base station providing an uplink control channel. For example, in TS 37.340, a first base station determines the identifier of a second base station through messages such as a SgNB Addition Request. *E.g.*, TS 37.340 at 8, 22-23 (4.1.2 MR-DC with the EPC E-UTRAN supports MR-DC via E-UTRA-NR Dual Connectivity (EN-DC), in which a UE is connected to one eNB that acts as a MN and one en-gNB that acts as a SN. The eNB is connected to the EPC via the S1 interface and to the en-gNB via the X2 interface. The en-gNB might also be connected to the EPC via the S1-U interface and other en-gNBs via the X2-U interface. ; the first base station is referred to as eNB and the second base station is referred to as en-gNB;

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10.2.1 EN-DC

The Secondary Node Addition procedure is initiated by the MN and is used to establish a UE context at the SN to provide resources from the SN to the UE. For bearers requiring SCG radio resources, this procedure is used to add at least the first cell of the SCG. This procedure can also be used to configure an SN terminated MCG bearer (where no SCG configuration is needed). Figure 10.2.1-1 shows the Secondary Node Addition procedure.

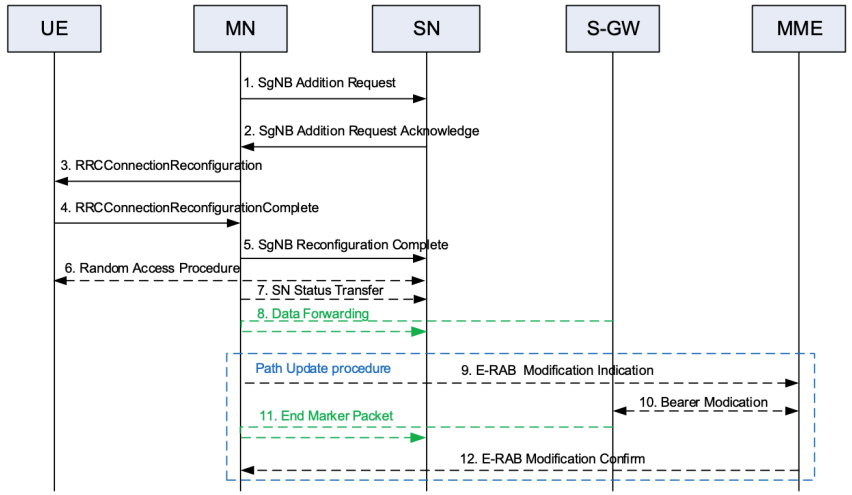

Figure 10.2.1-1: Secondary Node Addition procedure

1. The MN decides to request the SN to allocate resources for a specific E-RAB, indicating E-RAB characteristics (E-RAB parameters, TNL address information corresponding to bearer type). In addition, for bearers requiring SCG radio resources, MN indicates the requested SCG configuration information, including the entire UE capabilities and the UE capability coordination result. In this case, the MN also provides the latest measurement results for SN to choose and configure the SCG cell(s). The MN may request the SN to allocate radio resources for split SRB operation. The MN always provides all the needed security information to the SN (even if no SN terminated bearers are setup) to enable SRB3 to be setup based on SN decision. In case of bearer options that require X2-U resources between the MN and the SN, the MN provides X2-U TNL address information for the respective E-RAB, X2-U DL TNL address information for SN terminated bearers, X2-U UL TNL address information for MN terminated bearers. In case of SN terminated split bearers the MN provides the maximum QoS level that it can support. The SN may reject the request.

6. If configured with bearers requiring SCG radio resources, the UE performs synchronisation towards the PSCell of the SN. The order the UE sends the *RRCConnectionReconfigurationComplete* message and performs the Random Access procedure towards the SCG is not defined. The successful RA procedure towards the SCG is not required for a successful completion of the RRC Connection Reconfiguration procedure.

; the first base station is referred to as “MN” and the second base station is referred to as “SN”); 3GPP TS 36.423 V.15.4.0 (which can be downloaded at https://www.3gpp.org/ftp//Specs/archive/36_series/36.423/36423-f40.zip) at 145-147 (describing SgNB Addition Request Acknowledge). *See also* 3GPP TS 38.213

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	V15.4.0 (which can be downloaded at https://www.3gpp.org/ftp//Specs/archive/38_series/38.213/38213-f40.zip) at 19 (7.2 Physical uplink control channel If the UE is configured with a SCG, the UE shall apply the procedures described in this subclause for both MCG and SCG. - When the procedures are applied for MCG, the term 'serving cell' in this subclause refers to serving cell belonging to the MCG. - When the procedures are applied for SCG, the term 'serving cell' in this subclause refers to serving cell belonging to the SCG. The term 'primary cell' in this subclause refers to the PSCell of the SCG. ; the SCG (secondary cell group) supports Uplink Control Channel; EN-DC E-UTRA NR dual connectivity with MCG using E-UTRA and SCG using NR); 3GPP TS 38.331 V15.4.0 (which can be downloaded at https://www.3gpp.org/ftp//Specs/archive/38_series/38.331/38331-f40.zip) at 429-433 (describing CG-Config message). Investigation of both the patent and the Exemplary Product (and other potentially infringing products) is ongoing. This chart is based on evidence and analysis reasonably accessible at this time. Wireless Alliance reserves the right to update and amend its contentions, including adding additional claims and evidence, as the litigation progresses and discovery is provided by the defendant.
[e] transmitting, performed by the first base station, the identifier of a second base station through the downlink cell association; and	The first base station of the Exemplary Product transmits the identifier of a second base station through the downlink cell association. For example, the first base station can transmit the identifier of a second base station through the downlink cell association in the form of, for example, an RRC Connection Reconfiguration message and related messages. *E.g.*, TS 37.340 at 22 (

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10.2.1 EN-DC

The Secondary Node Addition procedure is initiated by the MN and is used to establish a UE context at the SN to provide resources from the SN to the UE. For bearers requiring SCG radio resources, this procedure is used to add at least the first cell of the SCG. This procedure can also be used to configure an SN terminated MCG bearer (where no SCG configuration is needed). Figure 10.2.1-1 shows the Secondary Node Addition procedure.

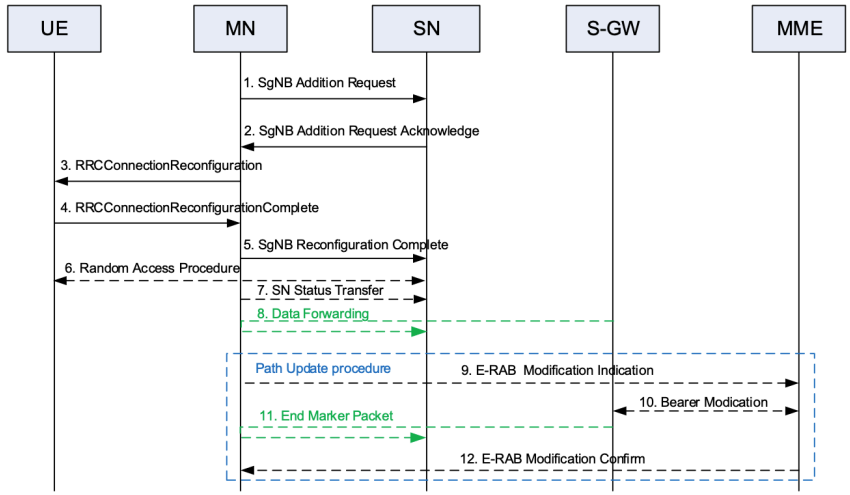

Figure 10.2.1-1: Secondary Node Addition procedure

1. The MN decides to request the SN to allocate resources for a specific E-RAB, indicating E-RAB characteristics (E-RAB parameters, TNL address information corresponding to bearer type). In addition, for bearers requiring SCG radio resources, MN indicates the requested SCG configuration information, including the entire UE capabilities and the UE capability coordination result. In this case, the MN also provides the latest measurement results for SN to choose and configure the SCG cell(s). The MN may request the SN to allocate radio resources for split SRB operation. The MN always provides all the needed security information to the SN (even if no SN terminated bearers are setup) to enable SRB3 to be setup based on SN decision. In case of bearer options that require X2-U resources between the MN and the SN, the MN provides X2-U TNL address information for the respective E-RAB, X2-U DL TNL address information for SN terminated bearers, X2-U UL TNL address information for MN terminated bearers. In case of SN terminated split bearers the MN provides the maximum QoS level that it can support. The SN may reject the request.

). *See also* TS 36.331 at 335-343 (describing RRCConnectionReconfiguration message, including describing nr-SecondaryCellGroupConfig as including the "NR *RRCReconfiguration*"); TS 38.331 at 23 (

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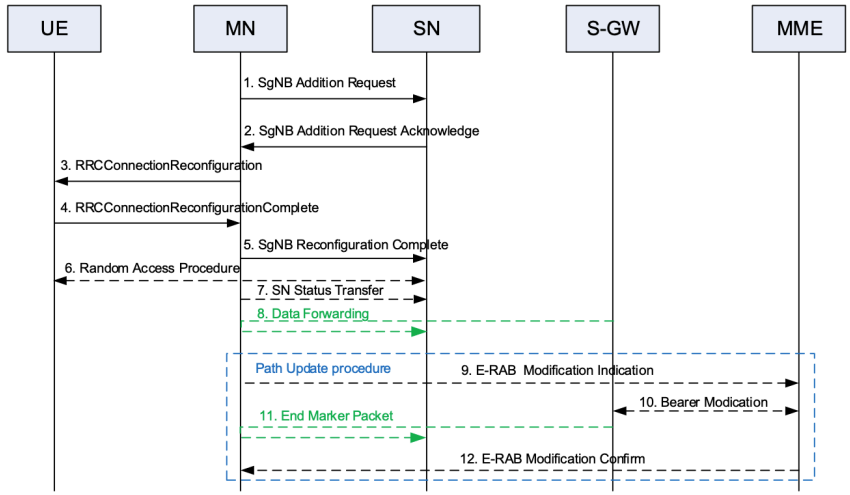
	5.1.3 Requirements for UE in EN-DC In this specification, the UE considers itself to be in EN-DC if and only if it is configured with nr-SecondaryCellGroupConfig according to TS 36.331[10].); 127-28 (describing RRCReconfiguration message); 129 (***secondaryCellGroup*** Configuration of secondary cell group (EN-DC).); 178-181 (description of CellGroupConfig information element); 261 (describing PhysCellId as identifying "physical cell identity (PCI)"). Investigation of both the patent and the Exemplary Product (and other potentially infringing products) is ongoing. This chart is based on evidence and analysis reasonably accessible at this time. Wireless Alliance reserves the right to update and amend its contentions, including adding additional claims and evidence, as the litigation progresses and discovery is provided by the defendant.
[f] establishing, performed by the second base station, an uplink cell association with the terminal.	The second base station of the Exemplary Product establishes an uplink cell association with the terminal. For example, in TS 37.340, this is shown by the Random Access Procedure and SN Status Transfer messages and related messages, also described in narrative step 6. *E.g.*, TS 37.340 at 22-23 (

Claim Language	Selected Analysis and Evidence Regarding Exemplary Product
	10.2.1 EN-DC The Secondary Node Addition procedure is initiated by the MN and is used to establish a UE context at the SN to provide resources from the SN to the UE. For bearers requiring SCG radio resources, this procedure is used to add at least the first cell of the SCG. This procedure can also be used to configure an SN terminated MCG bearer (where no SCG configuration is needed). Figure 10.2.1-1 shows the Secondary Node Addition procedure.  **Figure 10.2.1-1: Secondary Node Addition procedure** 1. The MN decides to request the SN to allocate resources for a specific E-RAB, indicating E-RAB characteristics (E-RAB parameters, TNL address information corresponding to bearer type). In addition, for bearers requiring SCG radio resources, MN indicates the requested SCG configuration information, including the entire UE capabilities and the UE capability coordination result. In this case, the MN also provides the latest measurement results for SN to choose and configure the SCG cell(s). The MN may request the SN to allocate radio resources for split SRB operation. The MN always provides all the needed security information to the SN (even if no SN terminated bearers are setup) to enable SRB3 to be setup based on SN decision. In case of bearer options that require X2-U resources between the MN and the SN, the MN provides X2-U TNL address information for the respective E-RAB, X2-U DL TNL address information for SN terminated bearers, X2-U UL TNL address information for MN terminated bearers. In case of SN terminated split bearers the MN provides the maximum QoS level that it can support. The SN may reject the request. 6. If configured with bearers requiring SCG radio resources, the UE performs synchronisation towards the PSCell of the SN. The order the UE sends the *RRCConnectionReconfigurationComplete* message and performs the Random Access procedure towards the SCG is not defined. The successful RA procedure towards the SCG is not required for a successful completion of the RRC Connection Reconfiguration procedure.).

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	Investigation of both the patent and the Exemplary Product (and other potentially infringing products) is ongoing. This chart is based on evidence and analysis reasonably accessible at this time. Wireless Alliance reserves the right to update and amend its contentions, including adding additional claims and evidence, as the litigation progresses and discovery is provided by the defendant.